Doc Code: AP.PRE.REQ

PTO/SB/33 (07-09)
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# PRE-APPEAL BRIEF REQUEST FOR REVIEW

Docket Number (Optional)
IDF 2584 (4000-16100)

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on _____

Signature _____

Typed or printed name _____

| Application Number | Filed |
|---|---|
| 10/723,967 | November 26, 2003 |
| **First Named Inventor** | |
| Joseph G. Laura | |
| **Art Unit** | **Examiner** |
| 2192 | Ben C. Wang |

Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.

This request is being filed with a notice of appeal.

The review is requested for the reason(s) stated on the attached sheet(s).
Note: No more than five (5) pages may be provided.

I am the

☐ applicant/inventor.

☐ assignee of record of the entire interest. See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96)

☑ attorney or agent of record. Registration number 39800.

☐ attorney or agent acting under 37 CFR 1.34.
Registration number if acting under 37 CFR 1.34 _____

/Michael W. Piper/
Signature

Michael W. Piper
Typed or printed name

972.731.2288
Telephone number

Date

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below*.

☐ *Total of _____ forms are submitted.

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

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|---|---|---|---|
| Applicant: | Joseph G. Laura | § | Group Art Unit: 2192 |
| Serial No.: | 10/723,967 | § | Examiner: Wang, Ben C. |
| Filed: | November 26, 2003 | § | Confirmation No.: 9521 |
| For: | APPLICATION MONITOR SYSTEM AND METHOD | § | |

**REASONS FOR REQUESTING PRE-APPEAL REVIEW**

In the Final Office Action dated March 17, 2009 ("Final Office Action"), claims 21 and 35 were rejected under 35 U.S.C. § 102(e) as being anticipated by Nace et al., U.S. Pub. No. 2004/0268363 ("Nace"). Claims 1 and 12 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Nace in view of Sridharan. Applicants respectfully submit that the Final Office Action had a clear error because the applied art, alone or in combination, does not disclose all of the limitations recited in claims 1, 12, 21, and 35. Claims 2-11, 13-20, 22-34, and 36-38 depend from claims 1, 12, 21, and 35 respectively. Therefore, the arguments presented below in support of patentability for claims 1, 12, 21 and 35 apply to and are repeated for the other claims as well. None of Kashima, Tao-1, Tao-2, nor Huang, alone or in combination, cure the deficiencies of Nace and Sridharan.

**Claims 1, 12, 21, and 35:**

I. Nace does not disclose obtaining a value for one or more of the plurality of variables written to the address space by the application during the **real-time** operation of the application.

Claim 21 of the pending application recites in part "the module performs attaching to an address space used by the application during real-time operation to obtain a value for one or more of the plurality of variables written to the address space by the application during the real-time operation of the application using the offset." In other words, a system according to claim 21 of the pending application allows variable values of an application to be non-obtrusively monitored in **real-time**. No interrupts are required to be inserted into the application code nor are any conditions placed on the application's ability to manipulate its data. Rather, the module merely attaches to the memory of the application and occasionally passively obtains values for one or more variable values. However, Nace discloses a system of shared memory resources in which a portion of shared memory space allocated to one process is locked to permit a requesting process to access data. (See, for example, Abstract of Nace). Thus, the operation of the target process is interfered with by the sharing mechanism since the target process is prevented from manipulating

its data as it needs to in order to allow another process to access the data. This results in the operation of the target process being interrupted, therefore, any values for variables obtained by the requesting process are not obtained in real-time, but, rather, require that the other process be temporarily interfered with or even halted while the requesting process accesses the target processes data.

The Final Office Action states, on page 31, that "Nace teaches 'an inter-process communications platform enables individual processes to request and exchange data in a shared memory space' (e.g., recited in Abstract, Lines 1-3); and 'when one process requests access to a variable, pointer or other data generated by another process, the request is mediated by the communications engine" (e.g., recited in Abstract, Lines 9-12) (emphasis in original). The Applicant respectfully disagrees with the Final Office Action's characterization of Nace. The Final Office Action appears to ignore the requirement that obtaining "a value for one or more of the plurality of variables written to the address space by the application" must be obtained during the **real-time** operation of the application. Nace discloses that "if the administrative memory space 106 is locked, full or otherwise unable to provide access, the requesting process in the set of processes 102a, 102b ... may enter a wait state or otherwise delay the rendezvous process." (See, Nace, ¶ 21). Thus, the Final Office Action had a clear error because Nace is **not** real-time and is certainly not non-intrusive, since the application must wait or delay, thereby interrupting "real-time" performance.

II. Nace does not disclose a system for non-intrusively monitoring variables during operation of an application.

Claim 21 recites "[a] system for non-intrusively monitoring variables during operation of an application." Nace does not disclose non-intrusively monitoring variables during operation of an application, but rather discloses a system for interprocess communications. The preamble of claim 21 should be afforded patentable weight because claim 21 does not merely recite an intended use, but, states the framework of the invention reciting "[a] system for non-intrusively monitoring variables during operation of an application." Furthermore, even if the preamble of claim 21 is not read to limit the claim, it still provides a framework by which the deficiencies of Nace are highlighted. A system according to claim 21 provides for non-intrusively monitoring variables during the operation of an application. The elements of Nace identified by the Final Office Action as being equivalent to the limitations of claim 21 are not equivalent as discussed in detail below and do not result in a system of non-intrusively monitoring variables during the operation of an application when combined, but, rather, result in a system for interprocess communications.

**Claims 1, 12, and 21:**

III. Nace does not disclose "attaching to an address space."

Claim 21 of the pending application recites in part "the module performs attaching to an address space used by the application during real-time operation to obtain a value for one or more of the plurality of variables written to the address space by the application during the real-time operation of the application using the offset." The module does not create a shared memory space, but merely attaches to the address space created by an application. Furthermore, the module does not write to the memory, but only reads the contents of the memory.

The Final Office Action continues to allege that Nace provides an application and a module and points to figure 2 and paragraph 19 of Nace as disclosing this teaching. The Final Office Action equates one of processes 102a and 102b with the application as recited in claim 21 and communication engine 108 with the module as recited in claim 21. However, the communication engine 108 in Nace does not attach to the shared memory space 104, but rather is able to create shared memory blocks and populate memory blocks for communication with other processes that are sharing the memory space. (See, for example, Nace, paragraphs 24, 25, 33, and 35). Furthermore, the communication engine 108 does not merely passively attach to an address space thereby allowing for non-intrusive monitoring of an application variable. Rather, the communication engine 108 can lock the shared memory block, create new shared memory blocks, and write to shared memory blocks. (See, for example, Nace abstract and paragraphs 19 and 24). Additionally, locking the shared memory block is not non-intrusive. Thus, the Final Office Action had a clear error because Nace does not disclose "attaching to an address space."

**Claims 12 and 21:**

IV. Nace does not disclose using the offset to obtain a value for one or more of the plurality of variables written to the address space by the application during the real-time operation of the application.

The Final Office Action continues to rely on paragraphs 22 and 39 of Nace to disclose this feature. However, Nace does not disclose using the offset to obtain a value for a variable written to the address space. A text string search of Nace for "offset" produced exactly two results. One occurrence is in paragraph 22 and the other is in paragraph 39. In paragraph 22, Nace states that "[o]ther data 116 related to the newly-generated shared memory block in the set of memory blocks 114a, 114b . . . may also be loaded into administrative memory 106, which data may include for instance file handles, variables, address offset or other memory mapping data and other information related to the requesting process in the set of processes 102a, 102b . . . and its corresponding memory block." Thus, in paragraph 22, Nace merely discloses that an

"address offset" may be part of the data loaded into administrative memory 106, but does not disclose how the offset may be utilized. In fact, the offset is not even required to be stored, but is merely an example of data that may be stored into administrative memory 106. In paragraph 39, Nace states that "[w]hen a memory block with the set of memory blocks 114a, 114b . . . or a segment thereof is released, the buddy of that block may be efficiently recaptured as well, by computation of the offset or other known relation to its associated buddy block or segment." It is clear that the offset is not used to determine an address space to obtain a variable written to the address space by an application, but rather is used to determine the address of another memory block that is related (e.g. buddy block) to a released memory block so that the "buddy block" also may be released or recaptured by the system. Thus, The Final Office Action had a clear error because Nace does not disclose using the offset to obtain a value for one or more of the plurality of variables written to the address space by the application during the real-time operation of the application.

**Claim 35:**

V. Nace does not disclose a technical layer nor does Nace disclose COBOL.

Claim 35 recites in part that "a COBOL program stored on a computer-readable medium that creates a shared memory are through a technical layer" and "a COBOL monitor module stored on a computer-readable medium that shares the shared memory area with the COBOL program through the technical layer." COBOL applications generally cannot create or access shared memory areas. The technical layer provides a mechanism for the COBOL program to create a shared memory area and for the COBOL monitor module to access the shared memory area. Nace does not disclose a technical layer.

The Final Office Action alleges that the specification states that "the technical layer provides a plurality of routines including a shared memory routine and a socket routine" relying on paragraph 26 of the pending application. However, the Final Office Action appears to ignore many other references in the specification that describe a technical layer, including, for example, paragraphs 27 and 36-43 which describe a technical layer socket routine. Paragraph 55 of the pending application states that "when COBOL is employed as the programming language for encoding the applications 20 and 22 a technical layer may be employed to provide convenient access to operating system socket services." The Final Office Action alleges that the memory manager 118a or 118b in Nace is a technical layer. However, the memory manager 118a or 118b does not provide a mechanism for allowing COBOL programs and modules to create or access share memory areas.

Furthermore, Nace does not disclose COBOL and, therefore, has no need of a technical layer that provides a mechanism for the COBOL program to create a share memory area and for the COBOL monitor module to access the shared memory area. In the response to the Applicant's previous arguments, the Final Office Action, on page 33, states that Nace discloses "different types of code or instruction may be used." The Final Office Action, further states that "Kashima teaches 'in the case of CORBA, the connectivity with current system is kept high because of its mainframe and COBOL support'" and that "'the CORBA specification defines IDL, control objects such as ORB and BOA, mapping to languages such as C++ and COBOL ...' (recited in Section 2. The Concept of CORBA ...)." However, claim 35 was rejected under 35 U.S.C. § 102 as anticipated by Nace, therefore reference to other prior art is improper. Furthermore, if the Final Office Action intended to reject claim 35 under 35 U.S.C. § 103, no reasoned statement as to why Nace should be combined with Kashima and/or "The Concept of CORBA" in the manner proposed is provided by the Final Office Action. Thus, the Final Office Action had clear errors because Nace does not disclose a technical layer nor does it disclose COBOL.

**Conclusion**

Applicants respectfully submit that the Final Office Action had clear errors because all of the limitations of the claims clearly were not met by the applied art for the reasons stated above. Accordingly, Applicants respectfully request prosecution to be reopened and Applicants respectfully submit that the present application is in condition for allowance.

The Commissioner is hereby authorized to charge payment of any further fees associated with any of the foregoing papers submitted herewith, or to credit any overpayment thereof, to Deposit Account No. 21-0765, Sprint.

Respectfully submitted,

Date: September 17, 2009

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